THIS DOCUMENT WAS INITIALLY FILED WITH THE COMMISSION ON PAPER ON FEBRUARY 10, 2003. BECAUSE THE DOCUMENT HAS NOT YET APPEARED ON THE ELECTRONIC COMMENT FILING SYSTEM, IT IS BEING RE-FILED ELECTRONICALLY.

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
Improving Public Safety Communications	)	
In the 800 MHz Band	)	
	)	WT Docket No. 02-55
Consolidating the 900 MHz Industrial/	)	
Land Transportation Business Pool	)	
Channels	)	

To: The Commission

COMMENTS ON
SUPPLEMENTAL COMMENTS OF THE CONSENSUS PARTIES

ELECTROCOM, INC.

Dennis C. Brown
126/B North Bedford Street
Arlington, Virginia 22314
703/525-9630

Dated: February 10, 2003

TABLE OF CONTENTS

Summary of the Filing

Electrocom, Inc. operates geographic area SMR-Trunked systems in the 900 MHz band, providing service to numerous protectors of the safety of life and property. Electrocom's use of the 900 MHz band could be destroyed by the 16 Parties' latest proposition.

The 16 Parties' filing failed totally to address the harm which could be caused to incumbents by the use of low site iDEN modulation at 900 MHz. There is no room for a guard band at 900 MHz and the use of 25 kHz wide low site iDEN modulation immediately adjacent to 12.5 kHz bandwidth high site incumbents has at least as great a potential for harmful interference as at 800 MHz. However, the 16 Parties did not present any methodology for preventing or resolving interference at 900 MHz.

The 900 MHz band is comparatively clean and should be kept clean by the Commission. Permitting the use by Nextel of iDEN modulation at 900 MHz, even on an interim basis, would be contrary to the assumptions on which the Commission's interleaved allocation of the 900 MHz band is based. The Commission should not allow the known iDEN problem to corrupt the 900 MHz band.

It is not, as the 16 Parties suggested, "crucial" that Nextel use iDEN modulation in the 900 MHz band to solve its interference problem at 800 MHz. The 16 Parties did not demonstrate that Nextel could not accomplish an 800 MHz band frequency exchange without using iDEN

modulation at 900 MHz. Alternatives exist, including Nextel's not accepting new subscribers for a period of time and Nextel's rapid implementation of Motorola's new voice encoder that is to increase Nextel's capacity.

The 16 Parties failed to provide the Commission with any estimate of the cost to Nextel for Nextel simply to stop interfering and not interfere with other 800 MHz band users in the future. In the absence of such an estimate, the 16 Parties did not place the Commission in a position to make reasoned decision in favor of their proposal.

The Commission needs to take care to maintain the credibility of its rules by enforcing its existing interference rules in the instant situation. The Commission also needs to avoid facilitating licensees' engaging in anticompetitive behavior.

The Commission should either reject the 16 Parties' proposition in toto or prohibit Nextel from using iDEN modulation at low transmitter sites in the 900 MHz band.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Improving Public Safety Communications	)	
In the 800 MHz Band	)	
	)	WT Docket No. 02-55
Consolidating the 900 MHz Industrial/	)	
Land Transportation Business Pool	)	
Channels	)	

To: The Commission

COMMENTS ON
SUPPLEMENTAL COMMENTS OF THE CONSENSUS PARTIES

Electrocom, Inc. (Electrocom) hereby files its Comments on the Supplemental Comments of the Consensus Parties ("Supplemental Comments" of the "16 Parties") in the above captioned matter. In support of its position, Electrocom shows the following.

Electrocom's Interest

In 1995, in Auction 7, the Commission invited bidders for 900 MHz band licenses, stating that "we believe that this is a unique opportunity for operators to build new and creative businesses," Letter from Regina M. Keeney, Chief, Wireless Telecommunications Bureau, contained in the Commission's Bidder Information Packet. The Commission further stated that it had employed a "range of methods to ensure that small businesses have a full opportunity to participate in these SMR services," *id.*

Relying on the Commission's good faith, Electrocom seized the opportunity. Electrocom, a very small business, operates a 10 channel SMR-Trunked 900 MHz band

system in the New Orleans-Baton Rouge MTA and a 10 channel SMR-Trunked 900 MHz band in the New Orleans DFA. Electrocom trusts that the Commission will not take any action in the above captioned matter that would compromise and reduce to less than full the opportunity which the Commission extended and for which Electrocom paid its full auction bid. But, Electrocom is deeply concerned that the use by Nextel Communications, Inc. of iDEN modulation in the 900 MHz band, on even an interim basis, would place the safety of life and property at undue risk and have destructive anti-competitive consequences on those small operators who have relied on the Commission to protect their interests.

Electrocom provides 900 MHz band SMR service to a variety of end users whose activities are essential to the maintenance of public health and safety. For example, Electrocom provides service to ambulance operators which rush to the immediate protection of the safety of life. To avoid the spread of disease and vermin, the public health depends on prompt and efficient removal of trash, and Electrocom provides service to essentially every trash collection service in the area. Electrocom provides service to numerous security guard services who form the first line of defense against threats to the safety of life and property and who reduce the protective burdens of police and fire agencies. Electrocom provides temporary service to multiple users during the annual Mardi Gras and JazzFest to allow the users to manage the exceptionally large crowds. Electrocom provided reliable radio communications to Superbowl 2002 to allow the security agencies to meet the increased risk of terrorist activity only weeks after the events of September 11, 2001. Electrocom could provide more examples, but it should be clear that any interference to Electrocom's very small

business 900 MHz band system will present exactly as much danger to the safety of life and property as Nextel's interference to an 800 MHz band Public Safety system.

The Totally Unaddressed Problem at 900 MHz

The 16 Parties — a distinct minority of the persons filing comments and reply comments in the above captioned proceeding — expended a great deal of effort to devise an apparat for conducting a frequency realignment scheme that would require almost four years. However, the 16 Parties failed totally to address the destruction which would obviously be visited on existing users in the 900 MHz band.

In a conference call for investor analysts on December 17, 2002, Nextel Communications, Inc. disclosed that some twenty percent (20%) of its handsets now in service are dual band units, capable of operation at both 800 MHz and 900 MHz. Nextel stated that it intended to cause these two million (2,000,000) handsets and most new handsets to operate at 900 MHz for the duration of the proposed frequency relocation period.

In its Notice of Proposed Rule Making, the Commission preliminarily accepted the premise that its 800 MHz intermixed allocation was a cause of the interference which led to the instant proceeding, NPRM at para. 72. There are distinct differences between the 800 MHz band and the 900 MHz band allocations which place incumbent systems in the intermixed 900 MHz band at even greater risk than the 800 MHz systems which are suffering

interference and which the Commission has admitted will suffer increased interference in the future, NPRM at para. 18.

While the Commission allocated the 861-866 MHz band (the Upper 200 Channels) solely for SMR systems, the entire 900 MHz band is intermixed among Business, Industrial/Land Transportation, and SMR allocations. While the 800 MHz band is 18 MHz wide (851-869 MHz), the 900 MHz band is only 5 MHz wide. There is no room for a guard band within the 900 MHz band to protect incumbents from the type of interference which Nextel has thrust upon the 800 MHz band. Every Nextel channel block at 900 MHz is immediately adjacent to both a Business frequency block and an Industrial/Land Transportation block. Nextel's dominance in license holdings in the 900 MHz band is well known to the Commission. Of specific concern to Electrocom, among the 19 geographic area 900 MHz band SMR licenses in the New Orleans-Baton Rouge MTA, only 2 are not held by Nextel or Nextel related companies. Therefore, there would be no escape possible for Business or Industrial/Land Transportation users, and independent SMR operator Electrocom, itself, would be at substantial risk.

The 900 MHz band is comparatively clean and should be kept clean by the Commission. DW Communications, Inc., a sister company to Electrocom, operates an 800 MHz band system in New Orleans. As shown by the spectrum analyzer photographs at Exhibit I, there is an inescapable difference between the density of modulation on a DW analog channel and the density of modulation on a Nextel iDEN channel. Further, although

Electrocom analog transmitters are on the air only intermittently, iDEN transmitters must remain on continuously to maintain system synchronization. The Commission recognizes that 800 and 900 MHz band receivers are affected by energy outside of the desired channel. That iDEN "always-on-with-full- occupied-bandwidth" modulation has a greater potential to affect victim receivers than intermittent analog emission should be obvious from Exhibit I.

Invalid and Endanged Assumptions

When the Commission allocated the 900 MHz band, it was cognizant of the difficulties which might result from limiting channel bandwidths to 12.5 kHz. Rather than separating a system's base station channels by 1 MHz as at 800 MHz, the Commission allocated blocks of contiguous channels on the assumption that most interference from a system would thereby be confined to that system, rather than distributed among many adjacent channel users. Other assumptions which underlay the 900 MHz band allocation were that interference would be limited by intermittent use of the channels and by the rolling off of the bandpass of each transmitter at intervals of 12.5 kHz, and that users would operate high power stations at high antenna sites. The 900 MHz band was not allocated on the premise that a 12.5 kHz analog intermittent use system could withstand an incessant hammering from an adjacent 25 kHz wide digital emission which was stretched to the very edges of its passband and was operating at a low site.

While the considerations which underlay the 900 MHz allocation have been successful in preventing interference among analog systems, the record in the above captioned

proceeding is bereft of evidence that high site analog and low site digital systems could co-exist in the 900 MHz band. Each block of ten channels of Business or Industrial/Land Transportation channels is sandwiched between two SMR blocks. That means that each end of a Business and Industrial/Land Transporation block is immediately adjacent to an SMR block, and it also means that each SMR system is no more than 125 kHz removed from another SMR channel block. The 16 Parties failed to consider in any way the potential for interference from 900 MHz low site digital systems to high site analog systems. In the absence of evidence from the 16 Parties, which are the proponent of their plan and bear the burden of proof, the Commission would act arbitrarily and capriciously were it to permit the spread of low site digital systems to the 900 MHz band.

The Commission and the 16 Parties are well aware that iDEN always-on-with-full-occupied-bandwidth digital modulation is incompatible with incumbent analog systems in an intermixed frequency allocation. Yet, the 16 Parties presented no plan, either technical or administrative, to prevent iDEN interference from metasticizing to the 900 MHz band if Nextel were permitted to relocate two million users to the band. To prevent destruction of the value of incumbent systems at 900 MHz, the Commission should not permit the use of iDEN or comparable technology at 900 MHz on even an interim basis.

There is, in fact, no such thing as an interim basis for the destructive effects of interference on the systems operated by Electrocom. A moment's interference can result in a lost communication which costs the lives of workers or the destruction of property of

inestimable value. A day's interference by Nextel can cause Electrocom to lose customers, quite likely to Nextel. A few days' interference can destroy the entire value of Electrocom's entrepreneurial investment.

The Commission is considering in the instant proceeding whether to allow the conversion of 900 MHz band Business and Industrial/Land Transportation systems to Commercial Mobile Radio Service operation. Were the Commission to permit such conversion, Electrocom could promptly find four of its high site analog channels immediately adjacent to low site digital CMRS systems. In light of the unsatisfactory experience at 800 MHz, if it permits the proposed conversion, the Commission should not permit converted channels to be used by low site digital systems.

Offering a sweetener, the 16 Parties asserted that their plan

> offers an incentive for 800 MHz B/ILT and high-site SMR incumbents to relocate voluntarily to 900 MHz by offering them an eventual 50 kHz channel assignment for each 25 kHz 800 MHz channel vacated. This option is intended to encourage B/ILT and high-site SMR operators desiring additional spectrum and/or contemplating equipment change outs to move expeditiously to 900 MHz, thereby reducing congestion on the 800 MHz band and creating additional "green space" to facilitate the realignment process,

Supplemental Comments at 12. The 16 Parties' suggestion is not credible. No commercial operator would be willing to accept an unquantified risk of four years of harmful interference from Nextel, because no commercial operator's business could survive to enjoy the additional bandwidth. Because the 16 Parties failed to quantify in any way the risk of interference from 900 MHz iDEN systems to relocating incumbents and failed to provide assurance that there is

no risk, there is no reason to believe that any incumbent would find any incentive to relocate to the 900 MHz band if iDEN operation were permitted. Therefore, the Commission can disregard the artificial sweetner.

Who Should Bear the Cross?

The 16 Parties are clearly wrong on one point. It is not "crucial" that Nextel impose iDEN interference on the 900 MHz band. Nextel can meet its needs entirely within the 800 MHz band. Under the 16 Parties' realignment time line, physical relocation would not begin for 14 months, Supplemental Comments at Appendix D-2. In its most recent 10-K report, Nextel claimed a subscribership of ten million. Assuming that Nextel's churn rate of about 20 percent per year holds steady, Nextel need only allow its subscribership to be reduced by attrition for one year so that its two million dual band units can continue to operate forever at 800 MHz. By simply freezing new additions for a few months, Nextel would have no need to use the 900 MHz band during the realignment.[1] Were the Commission to exercise its authority pursuant to Rule Section 90.173(b) ("further use of a frequency may be denied . . .") to order Nextel to freeze new additions, the Commission would surely expedite relocation entirely within the 800 MHz band.

[1] Nextel would not lose any subscribers by such appropriate cautionary action; it will have lost about 20 percent of its current subscribers per year in any case. Nextel will simply not replace them until the realignment has progressed to the point that Nextel can safely resume adding users.

Alternatives exist to Nextel's use of iDEN modulation at 900 MHz. Nextel has proudly announced the development by Motorola of a new voice encoder ("vocoder") which should double Nextel's existing traffic carrying capacity. Nextel need only stop interfering at 800 MHz until such time as the new vocoder is in service, at which time, it should have no need to use iDEN modulation at 900 MHz. If, however, Nextel believes that it cannot carry out the 16 Parties' realignment scheme entirely within the 800 MHz band with its current subscribership, then the Commission should either reject the 16 Parties' proposal or exercise its authority to prohibit Nextel from adding any new user prior to completion of the realignment.

Missing from the filings of Nextel and the 16 Parties is any estimate of the cost to Nextel for Nextel simply to stop interfering and not interfere in the future. It is entirely possible that Nextel could stop the interference immediately and could totally avoid any new interference at a far lower out of pocket cost than $850 million, and cause disruption to no other licensee.[2] In the absence of such an estimate, the Commission has no reasonable basis for evaluating the public interest in the 16 Parties' plan.

[2] Whether Nextel failed to meet hoped-for sales projections should be immaterial to the Commission's decision making. Were Nextel never to add another unit, the public would not suffer because there are at least four nationwide wireless telephone carriers who can meet the public's need for service.

Keep New Orleans Clean

The 16 Parties presented a methodology for resolution of interference problems at 800 MHz. However, they presented no such plan for the 900 MHz band. That may be understandable, because, at present, Nextel is not causing harmful iDEN interference in the 900 MHz band, at least not in the New Orleans-Baton Rouge area. To avoid the necessity of ever having to resolve Nextel interference in the 900 MHz band, the Commission should reject the 16 Parties' plan insofar as it contemplates Nextel's use of iDEN modulation in the 900 MHz band.

The 16 Parties presented no evidence of Nextel's allegedly "crucial" need to use the 900 MHz band in any certain market. Were the Commission even to consider allowing Nextel to use iDEN modulation at 900 MHz, it should do so only on the basis of metrics demonstrating need in each separate MTA. Such metrics might include, for example, the extent of existing loading during the busy hour; the number of held customer orders which cannot be accepted with existing capacity; and the extent to which there is no cellular, PCS, or SMR operator able to serve Nextel customers displaced during the realignment in the specific MTA.

Nextel Offered Nothing for 900 MHz

Although Nextel offered to meet the cost, up to its self-selected point, of remedying the interference which it is causing at 800 MHz, neither Nextel nor any other member of the 16 Parties offered any compensation for any harm which Nextel can reasonably be expected to

cause to incumbents at 900 MHz. In the absence of any commitment by Nextel to make all other 900 MHz band operators whole for any direct, consequential and incidental damages which they may suffer from iDEN operation at 900 MHz, the Commission should reject the 16 Parties' ex parte filing in toto.

The Burden is Now on the Commission

Section 90.173(b) of the Commission's Rules provides, in relevant part, that all licensees

> shall cooperate in the selection and use of frequencies in order to reduce interference and make the most effective use of the authorized facilities. [T]he Commission may impose restrictions including specifying the transmitter power, antenna height, or area or hours of operation of the stations concerned. Further[,] the use of any frequency at a given geographical location may be denied when, in the judgment of the Commission, its use in that location is not in the public interest; the use of any frequency may be restricted as to specified geographic areas, maximum power, or such other operating conditions,

47 C.F.R. §90.173(b). Rule Section 90.403(e) provides, in relevant part, that "licensees shall take reasonable precautions to avoid causing harmful interference," 47 C.F.R. §90.403(e). In view of Nextel's knowledge that iDEN modulation cannot co-exist with analog stations in an intermixed frequency allocation, Nextel would clearly be in violation of Rules 90.173(b) and 90.403(e) were it to commence iDEN operation in the 900 MHz band. The Commission should not place itself in the position of facilitating rule violations by any licensee.

The Commission's authority to impose monetary forfeitures for violation of its rules is sometimes not sufficient to provide the necessary deterrent effect. In some situations, the

value of destroying competition is so great that any forfeiture the Commission might impose on a licensee is not sufficient to deter anti-competitive activity by a licensee. Where the Commission recognizes that the potential for such a situation exists, the public interest demands that the Commission take effective, positive action to prevent an activity which could be destructive of competition. It is not necessary for either Electrocom or the Commission to question Nextel's good faith to recognize that were the Commission to allow Nextel to loose iDEN modulation upon the 900 MHz band, the anti-competitive effect, intended or not, would be immediate and, in part, irreparable. In view of the Commission's own recognition that iDEN modulation is incompatible with analog systems in an intermixed frequency allocation, the public interest demands that the

Commission act, quite apart from any action it may take on the 16 Parties' plan, to impose a restriction on Nextel's 900 MHz band licenses prohibiting the use of iDEN modulation.[3]

Conclusion

For all the foregoing reasons, Electrocom, Inc. respectfully requests that the Commission reject the 16 Parties's ex parte filing either in whole or insofar as it contemplates Nextel's using iDEN modulation in the 900 MHz band.

Respectfully submitted,

ELECTROCOM, INC.

/s/ Dennis C. Brown

126/B North Bedford Street
Arlington, Virginia 22201
703/525-9630

Dated: February 10, 2003

[3] The Commission should find it in the public interest to protect Nextel from itself to save Nextel from the risk of treble damage awards in anti-trust actions.

CERTIFICATE OF SERVICE

I hereby certify that on this tenth day of February, 2003 I served a copy of the foregoing on each of the following persons by placing a copy in the United States Mail, first-class postage prepaid:

Kris E. Hutchison
Senior Director, Frequency Management
AERONAUTICAL RADIO, INC.
2551 Riva Road
Annapolis, Maryland 21401-7465

Alan Shark, President and CEO
AMERICAN MOBILE
TELECOMMUNICATIONS ASSN.
200 North Glebe Road, Suite 1000
Arlington, VA 22203

Nicole B. Donath, Esq.
Keller & Heckman, LLP
1001 G Street, NW, Suite 500 West
Washington, DC 20001

Thera Bradshaw, President
APCO
351 North Williamson Boulevard
Daytona Beach, FL 32114

Kenton E. Sturdevant
Executive Vice President
FOREST INDUSTRIES
TELECOMMUNICATIONS
871 Country Club Road, Suite A
Eugene, Oregon 97401

Laura L. Smith, President & CEO
INDUSTRIAL TELECOMMUNICATIONS
ASSOCIATION, INC.
1110 North Glebe Road, Suite 500
Arlington, Virginia 22201-5720

William B. Berger, President
INTERNATIONAL ASSOCIATION
OF CHIEFS OF POLICE
515 N. Washington Street
Alexandria, Virginia 22314-2357

Martin W. Bercovici, Esq.
Keller & Heckman, LLP
1001 G Street, NW, Suite 500 West
Washington, DC 20001

Jerry Keller, President
MAJOR CITIES CHIEFS ASSN.
c/o Las Vegas Metro Police Department
400 Stewart Avenue
Las Vegas, Nevada 89101

Kevin E. Beary, President
MAJOR COUNTY SHERIFFS' ASSN.
c/o Orange County Sheriff's Office
2400 West 33rd Street 703-836-7827
Orlando, FL 32839

Tommy Ferrell, President
NATIONAL SHERIFF'S ASSN.
1450 Duke Street
Alexandria, Virginia 22314-3490

Jennifer Joy Wilson, President & CEO
NATIONAL STONE, SAND &
GRAVEL ASSOCIATION
2101 WILSON BOULEVARD
Arlington, Virginia 22201

Robert S. Foosaner
Senior Vice President and
Chief Regulatory Officer
NEXTEL COMMUNICATIONS, INC.
2001 Edmund Halley Drive
Reston, Virginia 20191

Jay Kitchen, President & CEO
PERSONAL COMMUNICATIONS
INDUSTRY ASSOCIATION
500 Montgomery Street
Alexandria, VA 22314-1561

Alfred LaGasse, Executive Vice President
TAXICAB, LIMOUSINE AND
PARATRANSIT ASSOCIATION
3849 Farragut Avenue
Kensington, Maryland 20895

/s/ Dennis C. Brown

EXHIBIT I

COMPARISON OF ANALOG FM SIGNAL TO iDEN DIGITAL SIGNAL